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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,503	05/04/2001	Myung-sik Yim	Q64255	7564

7590 02/15/2006

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EXAMINER
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USTARIS, JOSEPH G

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/848,503

Applicant(s)

YIM ET AL.

Examiner

Joseph G. Ustaris

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12,14 and 15 is/are rejected.
- 7) ☐ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendment dated 07 December 2005 in application 09/848,503. Claims 1, 2, 4-12, and 14-15 are pending. Claims 1, 2, 11, 12, and 14 are amended.

The rejection to claim 11 under 35 U.S.C. 112, first paragraph, is now withdrawn in view of the amendments.

Applicant's arguments, see page 12, filed 7 December 2005, with respect to the rejection(s) of claim(s) 10 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Trovato et al. (US006469742B1) in view of Whetsel (US005497379A).

### ***Claim Objections***

2. Claim 10 is objected to because of the following informalities: Claim 10 recites "one of the connectors the backplane" on line 7 of claim 10. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2617

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 7, 9, 12, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Chimoto et al. (US005838383A).

Regarding claim 1, Chimoto et al. (Chimoto) discloses a "multimedia device in a multimedia system" (See Fig. 1). The receiver has a "backplane" that has a bus and multiple module receptacles or "plurality of connectors", where each module receptacle uses a "predetermined signal standard" in order successfully communicate over the bus (See Fig. 1; column 7 lines 61-67 and column 10 lines 54-63). The receiver can accept multiple modules or "extension boards", where a module is "electrically coupled to a first one of the connectors for transmitting an MPEG transport stream" (See Fig. 1, modules 303-306; column 8 lines 1-26), and where each module would have the necessary components or "independent module" to process the steam when the module is selected (See column 8 lines 55-67 and column 9 lines 21-34). The receiver also includes a "main board unit" that has a CPU, memory, controllers, and a back-end processor (See Fig. 1, 313, 314, 309, and 311). The "main board unit" is incorporated into the "backplane" and is connected to all the module receptacles or "electrically coupled to a second one of the connectors" (See Fig. 1) via the bus. The back-end processor of the "main board unit" processes the MPEG transport stream transmitted by the extension board into a predetermined signal form (See column 9 lines 51-62 and column 10 lines 23-34) and the CPU selects the appropriate module or "extension board" (See column 8 lines 55-67, column 9 lines 21-34, and column 9 line 63 – column 10 lines 8). Furthermore, each of the receptacles inherently have a "transmission signal

line" in order to receive commands from the "main board" to the "extension board" (See column 7 lines 61-67 and column 8 lines 55-67), an "MPEG transport stream line" to transport the MPEG stream from modules 304-306 to module 307 and 308 (See Fig. 1), and an "analog audio/video signal line" in order to successfully receive analog signals into the system (See Fig. 1. 303; column 8 lines 1-25). Furthermore, the bus also serves as the "selection signal line" where it can transmit current parameters to the selected modules (See column 7 lines 61-67, column 8 lines 55-67, and column 9 lines 21-34).

Claim 2 contains the limitations of claim 1 (wherein the "main board unit" and "backplane" form a "combination main board unit" as a single unit (See Fig. 1)) and is analyzed as previously discussed with respect to that claim. Furthermore, the modules or "extension board" are attachable to any one of the receptacles and separately from the combination main board (See column 10 lines 54-63).

Regarding claim 5, the modules or "extension boards" have a "module unit" for transmitting a transport stream to the "backplane", when the CPU selects that particular "extension board", in order to successfully deliver the stream to other modules within the receiver (See Fig. 1; column 7 lines 61-67).

Regarding claim 7, the modules or "extension board" has a "module unit" as discussed in claim 5 above. Furthermore, the modules (See Fig. 1, 303-306) or "extension boards" have an "extended control unit" that will receive the commands from the CPU, execute the commands, and control the "module unit" to transmit the stream on to the bus of the receiver (See Fig. 1; column 7 lines 61-67 and column 8 lines 1-26).

Art Unit: 2617

The modules inherently have memory that stores a program that is executed by the module in order to successfully perform its functions (See Fig. 1, modules 303-308).

Regarding claim 9, inherently when the CPU does not select the module, the module does not transmit a transport stream on to the bus (See column 7 lines 61-67, column 8 lines 55-67, and column 9 lines 21-34).

Claim 12 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim.

Claim 14 contains the limitations of claims 1 and 7 (wherein the modules extends functions different from the functions on the main board (See Fig. 1)) and is analyzed as previously discussed with respect to those claims. Furthermore, each of the module (See Fig. 1, 303-306) have "module units" that drive a "function extension module" in order to successfully receive a signal and provide a transport stream to the bus (See Fig. 1; column 8 lines 1-26 and column 9 lines 34-50). Each module inherently has a "connector unit" that connects the "module unit" to the "extended control unit" in order for the module or "extension board" to operate correctly.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chimoto et al. (US005838383A).

Claim 4 contains the limitations of claims 1 or 2 and is analyzed as previously discussed with respect to those claims. Furthermore, Chimoto discloses a "MPEG transport stream decoder for decoding the MPEG transport stream into an MPEG video bit stream and an audio bit stream" (See Fig. 1, module 305; column 8 lines 1-26), an "MPEG video decoder for decoding the MPEG video bit stream" (See Fig. 1, module 307), an "audio decoder for decoding the audio bit stream" (See Fig. 1, module 308), and a CPU or "control unit" for selecting one of the modules or "extension boards", operating the MPEG TS decoder, the audio decoder, and the MPEG video decoder, and selectively outputting a multimedia signal (See Fig. 1, CPU; column 7 lines 61-67, column 8 lines 55-67, and column 9 lines 21-34). However, Chimoto does not explicitly disclose that the MPEG video decoder and the audio decoder provide an analog video and audio signal.

Official Notice is taken that it is well known for MPEG video decoders and audio decoders to produce analog video and audio signals. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the MPEG video decoder and audio decoder disclosed by Chimoto to be able to produce an analog video and audio signal in order to increase the capabilities of the system thereby making the system compatible with older system based on analog schemes.

Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chimoto et al. (US005838383A) in view of Trovato et al. (US006469742B1).

Claim 6 contains the limitations of claims 1 or 2 and is analyzed as previously discussed with respect to those claims. Furthermore, the modules or "extension boards" have a "module unit" for transmitting a transport stream to the "backplane", when the CPU selects that particular "extension board", in order to successfully deliver the stream to other modules within the receiver (See Fig. 1; column 7 lines 61-67). However, Chimoto does not disclose a memory storing a program to be executed by the main board.

Trovato et al. (Trovato) discloses electronic devices with adaptable upgrade capability. Trovato discloses that the modules include memory that stores device drivers and protocols that is used by the CPU to interface the module with the CPU or "memory storing a program to be executed by the main board" (See Fig. 1; column 4 lines 20-26). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the modules disclosed by Chimoto to have a memory that stores a program to be executed by the main board, as taught by Trovato, in order to make the upgrade process easier for the user thereby requiring less interaction from the user during the upgrade process.

Regarding claim 9, inherently when the CPU does not select the module, the module does not transmit a transport stream on to the bus (See Chimoto column 7 lines 61-67, column 8 lines 55-67, and column 9 lines 21-34).



Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chimoto et al. (US005838383A) in view of Battini et al. (US006919792B1).

Claim 8 contains the limitations of claim 7 and is analyzed as previously discussed with respect to that claim. However, Chimoto does not disclose that the “extended control unit transmits menu items in the form of an HTML document to the main board to display the menu items on a screen, and if a menu item displayed is selected by the main board, the extended control unit executes a command corresponding to the selected menu item.

Battini et al. (Battini) discloses a system for controlling various components in a system. Battini discloses that a device sends a set of HTML pages to a control unit that is used to control the device. The control unit displays the HTML pages. The HTML pages can display various information and control parameters or “menu items” (See column 3 line 60 – column 4 line 29). The user can use the HTML web pages to issue commands (e.g. change volume setting) and the command is sent to the device to execute the command (See column 3 line 60 – column 4 line 29 and column 6 lines 9-25). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the modules and CPU disclosed by Chimoto to be able to transmits menu items in the form of an HTML document to the main board to display the menu items on a screen, and if a menu item displayed is selected by the main board, the extended control unit executes a command corresponding to the selected menu item, as taught by Battini, in order to provide a more efficient means of controlling devices by using a well known and established language.

Claim 15 contains the limitations of claims 8 and 14 and is analyzed as previously discussed with respect to those claims.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trovato et al. (US006469742B1) in view of Whetsel (US005497379A).

Trovato et al. (Trovato) discloses a "method for extending functions of a multimedia device having a backplane, a main board, and at least one extension board electrically coupled to the backplane" (See Fig. 1). The system is able to "determine whether the extension board is electrically coupled to one of the plurality of connectors of the backplane" (See Fig. 1; column 4 lines 29-61). If a module is connected, the system is able to "analyze characteristics of the extension board" (See column 4 lines 20-26), wherein the CPU reads and loads the device drivers and protocols to order to successfully interface with the CPU. The system would use the module to "perform functions according to the characteristics" and "display a signal corresponding to the function of the extension board" (See column 4 lines 6-61). For example, if the module is a video signal processing unit or a graphic processor, then the system will utilize the module's functions and display the video or graphics on the display or screen (See Fig. 1). However, Trovato does not explicitly disclose "sequentially scanning the connectors".

Whetsel discloses a system that is able to perform tests on various circuits, e.g. bus circuits. Whetsel discloses that one of the test operations executes a sequence of connection scans to detect the presence of add on boards or "sequentially scanning the

connectors” (See column 14 line 59 – column 15 line 15). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system disclosed by Trovato to also sequentially scan the connectors, as taught by Whetsel, in order to verify if the modules are still active and present over a period of time (See column 14 lines 59-61).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trovato et al. (US006469742B1) in view of Whetsel (US005497379A) as applied to claim 10 above, and further in view of Battini et al. (US006919792B1).

Trovato in view of Whetsel does not disclose that the main board receives an operation command transmitted from the extension board in the form of a menu and displaying the received menu on the screen by a web browser, and performing a command corresponding to the displayed menu.

Battini et al. (Battini) discloses a system for controlling various components in a system. Battini discloses that a device sends a set of HTML pages to a control unit that is used to control the device. The control unit, which serves as a “web browser”, displays the HTML pages. The HTML pages can display various information and control parameters or “menu items” (See column 3 line 60 – column 4 line 29). The user can use the HTML web pages to issue commands (e.g. change volume setting) and the command is sent to the device to execute the command (See column 3 line 60 – column 4 line 29 and column 6 lines 9-25). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the

modules and CPU disclosed by Trovato in view of Whetsel to have the main board receive an operation command transmitted from the extension board in the form of a menu and displaying the received menu on the screen by a web browser, and performing a command corresponding to the displayed menu, as taught by Battini, in order to provide a more efficient means of controlling devices thereby making the system more convenient to the user.

### ***Response to Arguments***

5. Applicant's arguments filed 7 December 2005 have been fully considered but they are not persuasive.

Applicant argues with respect to claims 1, 2, 4-12, and 14-15 that Chimoto does not disclose that the connectors include a "transmission signal line", a "MPEG transport stream line", an "analog audio/video signal line", and a "selection signal line". However, reading the claims in the broadest sense, Chimoto does meet the limitations of the claims. Chimoto discloses that the modules are connected to a bus and that each module can communicate to each other (See column 7 line 50 – column 8 line 52). The bus carries various signals, e.g. "transmission signal", a "MPEG transport stream", an "analog audio/video signal", and a "selection signal", to other modules on the bus (See claim rejection above). The system can have additional receptacles to accept additional modules that change the function of the receiver, wherein the receptacles are not specifically made for a specific module (See column 10 lines 54-63). Therefore, each receptacle has a "transmission signal line", a "MPEG transport stream line", an "analog

audio/video signal line”, and a “selection signal line” in order to enable any module to be connected to any receptacle and change the function of the receiver.

Applicant's arguments with respect to claims 10 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Furthermore, applicant argues with respect to claim 10 that Trovato does not disclose a backplane having a plurality of connectors. However, reading the claims in the broadest sense, Trovato does meet the limitations of the claim. Trovato discloses that the modules and CPU may communicate with each other using a bus (See column 4 lines 13-20). Furthermore, Trovato discloses that the operating system, which the modules identifies itself to, is also a module that is upgradeable just like the other modules. Therefore, the modules plug into a “backplane having a plurality of connectors” in order to successfully connect the modules to the bus and CPU.

Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone

Art Unit: 2617

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JGU  
February 7, 2006



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